

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of Application of)	
)	
STATE OF WISCONSIN)	File No. D115274
)	
For Mobile Radio Service Authorization)	
And Request for Waiver of Section 90.173(c))	
of the Commission's Rules)	

ORDER

Adopted: February 23, 2000

Released: February 25, 2000

By the Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. On October 9, 1998, the State of Wisconsin (Wisconsin) filed an application for mobile radio service authorization¹ and request for waiver² of Section 90.173(c) of the Commission's Rules³ to permit licensing of a four-site very high frequency (VHF) trunked public safety communications system⁴ using federal/military frequencies between federal, state, and local agencies on a routine basis. Given a shared frequency usage agreement between the U.S. Army and Wisconsin, the proposed system represents a unique partnership between the federal and state government and is likely to be the first multi-agency, multi-jurisdiction public safety VHF trunking system in the United States. While there has been shared

¹File No. D115274. This application seeks to modify existing Station KQO228, which has fixed locations at Baraboo, Black River Falls, Milton Junction, and Ridgeville, Wisconsin.

²Wisconsin's request for waiver (Waiver Request) was appended to its application.

³47 C.F.R. § 90.173(c) provides, "Frequencies allocated for Federal Government radio stations under Executive order of the President may be authorized for the use of stations in these services upon appropriate showing by the applicant that such assignment is necessary for inter-communication with government stations or required for coordination with activities of the Federal Government, and where the Commission finds, after consultation with the appropriate government agency or agencies, that such assignment is necessary."

⁴A trunked system utilizes multiple radio frequencies in a manner that provides greater spectrum efficiency than would be obtained from the same number of frequencies if used in a conventional manner. Computerized trunking technology provides the ability to search randomly for available frequencies and automatically establish a talk path between a caller and a called party. See Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, *Notice of Proposed Rule Making*, WT Docket No. 96-86, 11 FCC Rcd 12460, 12477 n.30 (1996) (*Public Safety First Notice*).

frequency use of common channels by federal, state, and local entities for interoperability⁵ in the past, we believe that this proposed system is the first of its kind wherein an entire system, constructed by an FCC licensee, is specifically dedicated to the sharing of VHF frequencies by federal, state, and local public safety entities. Based on the record in this proceeding, we conclude that Wisconsin's Waiver Request should be granted as set forth below.

II. BACKGROUND

2. Wisconsin filed the subject application and associated waiver request to coordinate public safety operations.⁶ Wisconsin intends to construct a four-site VHF trunked system using forty government frequencies in the 138-144 MHz band.⁷ Wisconsin indicates that several of its various departments such as the Departments of Transportation, Natural Resources, Justice, Corrections, Military Affairs, and Health and Family Services will use the proposed system for public safety communications. Wisconsin filed the Waiver Request to broaden its scope by providing for shared use of the forty frequencies between local, state, federal, and military agencies on a routine basis.⁸ Wisconsin asserts this project has been nationally recognized as a unique partnership between the U.S. Army and Wisconsin due to the shared frequency usage agreement and is likely to be the first multi-agency, multi-jurisdiction public safety VHF trunking system in the United States.⁹

3. The National Telecommunications and Information Administration (NTIA),¹⁰ in coordination with the Interdepartment Radio Advisory Committee (IRAC),¹¹ approved a Memorandum of Agreement

⁵By "interoperability" we are referring to the ability of different governmental agencies to communicate across jurisdictions and with each other. *See* Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements through the Year 2010, *First Report and Order and Third Notice of Proposed Rulemaking*, WT Docket No. 96-86, 14 FCC Rcd 152 (1998).

⁶Application at Sch. D.

⁷Waiver Request at 1. The 40 frequencies set forth in Wisconsin's application are as follows: 139.0125 MHz, 139.1875 MHz, 139.3625 MHz, 139.7375 MHz, 139.9125 MHz, 139.0875 MHz, 139.2125 MHz, 139.4125 MHz, 139.7625 MHz, 139.9625 MHz, 139.1125 MHz, 139.2625 MHz, 139.6125 MHz, 139.8125 MHz, 140.3625 MHz, 139.1625 MHz, 139.3125 MHz, 139.6625 MHz, 139.8625 MHz, 140.4125 MHz, 141.5125 MHz, 141.9125 MHz, 142.2375 MHz, 142.4125 MHz, 142.8875 MHz, 141.6125 MHz, 142.1125 MHz, 142.3125 MHz, 142.4375 MHz, 142.9125 MHz, 141.6875 MHz, 142.1875 MHz, 142.3375 MHz, 142.4625 MHz, 142.935 MHz, 141.8125 MHz, 142.2125 MHz, 142.3875 MHz, 142.4875 MHz, and 142.9875 MHz. Application at Sch. G. *See* para. 11, *infra*.

⁸Waiver Request at 1.

⁹*Id.*

¹⁰The NTIA serves as the principal adviser to the President, Vice President, and Secretary of Commerce on domestic and international communications and information issues and represents the Executive Branch before Congress, other Federal agencies, foreign governments and international organizations.

¹¹The IRAC consists of a representative appointed by each of approximately 20 member Federal departments and agencies together with such other departments and agencies as NTIA might designate. The IRAC's substructure consists of the Frequency Assignment Subcommittee, the Spectrum Planning Subcommittee, the Technical

(MOA) between the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (*i.e.*, DOD), and the Secretary, Wisconsin Department of Transportation (WDOT).¹² This MOA establishes a basic agreement regarding the shared use by Federal entities and Wisconsin public safety entities of radio frequencies that are assigned by the NTIA to the Wisconsin National Guard through the U.S. Army, and would be licensed by the FCC to Wisconsin for satisfying its radio communications requirements for the four-site pilot trunked system.¹³ This agreement is intended to ensure that by sharing the use of these radio frequencies in operating the pilot trunked system, requirements for interoperable communications among Federal, State, and local government public safety entities will be satisfied.¹⁴ Based on the MOA, the NTIA granted spectrum certification support for the twenty channels (40 frequencies) to support the pilot trunked system.¹⁵

III. DISCUSSION

4. The FCC is responsible for the licensing of radio frequencies to non-Government entities.¹⁶ The NTIA is responsible for the licensing of radio frequencies to Government departments and agencies. The IRAC advises the NTIA in assigning frequencies to U.S. Government radio stations and in developing and executing policies, programs, procedures, and technical criteria pertaining to the allocation, management, and use of the spectrum. The frequencies in the 138-144 MHz band sought by Wisconsin are allocated on an exclusive basis for Government radio stations.¹⁷

Subcommittee, the Radio Conference Subcommittee, Emergency Planning Subcommittee, the International Notification Group, and a number of *ad hoc* working groups. Liaison between the IRAC and the FCC is effected by a representative appointed by the FCC to serve in that capacity.

¹²See Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau (WTB), FCC, from William T. Hatch, Associate Administrator, Office of Spectrum Management, NTIA (Jan. 27, 2000) (NTIA Letter). The NTIA Letter enclosed a copy of the MOA. Cynthia S. Raiford, Deputy Director, Communications OASD (C3I), on behalf of the DOD, signed the MOA on March 2, 1999, and William Singletary, Administrator, WDOT, State Patrol Division, on behalf of WDOT, signed the MOA on March 5, 1999. MOA at 3.

¹³See NTIA Letter at 1. The assignments authorized by the NTIA will be recorded in the Government Master File (GMF) and will carry Army serial numbers. The operating entity of record will be the Wisconsin Army National Guard. The NTIA authorized frequencies for the pilot trunked system will expire on July 1, 2001, and may be renewed subject to NTIA approval. MOA at 2.

¹⁴NTIA Letter at 1.

¹⁵*Id.*

¹⁶47 C.F.R. § 2.106 shows the United States Table of Allocations. Columns 4 through 7 are divided into the Government Table of Frequency Allocation and the Non-Government Table of Frequency Allocations. The Government plan (shown in column 4) is administered by the NTIA, and the non-Government plan (shown in column 5) is administered by the FCC. "Non-Government" means an entity which is not a federal entity. Thus, for example, Wisconsin is deemed a non-Government entity because it is not a federal entity.

¹⁷The NTIA recently identified 3 megahertz in this band, *i.e.*, 139.0-140.5 MHz and 141.5-143 MHz, for reallocation in response to the Balanced Budget Act of 1997. Pub. L. No. 105-33, § 3004, 111 Stat. 251 (1997), codified at 47 U.S.C. § 337(a)(1). Because the federal Government continues to have a valid requirement to establish reliable communications between federal agencies in the 138-144 MHz band, recent legislation in the "FY

5. The FCC may authorize non-Government (*i.e.*, non-federal) stations to use Government frequencies in bands above 25 MHz. First, pursuant to Section 2.102(c) of the Commission's Rules, we must find, after consulting with the appropriate Government agency or agencies that non-Governmental use is necessary to coordinate Government and non-Government activities.¹⁸ After determining that the non-Governmental use is necessary, we then must determine if this non-Governmental operation on the Government frequencies conforms with conditions agreed upon by the FCC and the NTIA.¹⁹ Second, in accordance with Section 90.173(c) of the Commission's Rules, we may authorize the use of frequencies allocated to Government radio stations for use of private land mobile radio (PLMR) stations upon a showing by the applicant that such assignment is needed for inter-communication with Government stations.²⁰ Finally, we may authorize the use of frequencies allocated to Government radio stations for PLMR stations when the station is authorized or required to coordinate with activities of the Government, and where the FCC finds, after consulting with the appropriate government agency or agencies, that such assignment is necessary.²¹ In all of these instances, the non-Governmental station is using the Governmental frequencies to coordinate or communicate with a Governmental agency. Wisconsin's Waiver Request, however, seeks to use the Governmental frequencies for all of its public safety communications regardless of whether the use involves coordinating or communicating with a Governmental entity.²²

6. Wisconsin states that the VHF trunking project will provide a next-generation communications system for all public safety agencies in Wisconsin while preserving backwards compatibility and interoperability with a large number of existing VHF systems.²³ Wisconsin further states that trunking adds efficiency while VHF frequencies provide satisfactory coverage throughout the hills and forests.²⁴ Additionally, Wisconsin asserts that the system will provide a migration path from current wideband systems to the more efficient narrowband radios and promote more effective and efficient utilization of public safety frequencies.²⁵ As a result of the ground-breaking nature of this venture, it filed the Waiver

2000 Defense Appropriations Bill" has reclaimed that spectrum for Government use. Pub. L. No. 106-65, § 1062(c) (1999).

¹⁸47 C.F.R. § 2.102(c).

¹⁹The requirements and conditions for such authorization are set forth in 47 C.F.R. §§ 2.102(c)(1), 2.102(c)(2), 2.102(c)(3), and 2.102(c)(4).

²⁰These Federal Government frequencies are allocated under Executive Order of the President of the United States. 47 C.F.R. § 90.173(c).

²¹For the rules regarding Policies Governing the Assignment of Frequencies, see 47 C.F.R. Part 90, Subpart H.

²²Waiver Request at 1.

²³*Id.*

²⁴*Id.*

²⁵*Id.*

Request because no provisions exist in FCC rules to license the non-federal entities involved in this joint federal/state/local VHF system.²⁶

7. To obtain a waiver of the Commission's Rules, a petitioner must demonstrate either that grant of the waiver would be in the public interest and the underlying purpose of the rule(s) would be frustrated or not served by application to the present case;²⁷ or that, in view of unique or unusual factual circumstances, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.²⁸ We find that Wisconsin has shown that, in light of unique or unusual circumstances, application of the rule to the instant case would be contrary to the public interest, and that it has no reasonable alternative, thus warranting grant of a waiver of Section 90.173(c) of the Commission's Rules. Our basis for this determination is set forth below.

8. *Unique Circumstances.* We find that Wisconsin has demonstrated that its proposal involves unique circumstances. The proposed system will be constructed by Wisconsin,²⁹ an FCC licensee, and specifically dedicated to the sharing of VHF frequencies by local, state, and Government public safety entities. The MOA establishes a basic agreement regarding the shared use of frequencies in the pilot trunked system (by Government entities and Wisconsin state and local government entities) within Wisconsin. These radio frequencies are allocated to the Government, assigned by the NTIA to the U.S. Army for satisfying Government radio communications requirements, and licensed by the FCC to the WDOT for satisfying Wisconsin radio communication requirements in the pilot trunked system.³⁰

9. We believe that the proposed Wisconsin system provides a unique opportunity to advance the potential for shared federal, state, local public safety systems. Wisconsin's use of the shared system for routine public safety purposes demonstrates a sufficient basis for building the system. It is our understanding that Federal entities will have full access to the pilot trunked system pursuant to the terms of the MOA.³¹ We are concerned that denying the Waiver Request possibly could undermine efforts in the public safety community to promote shared systems fostering interoperability and operational flexibility.³²

²⁶*Id.* Wisconsin subsequently filed a request for Special Temporary Authority (STA) on August 19, 1999, to conduct testing for six months on the VHF trunked digital narrowband radio system. *See* Letter from Carl R. Guse, Frequency Specialist, Bureau of Communications, WDOT, to Steve Linn (Aug. 19, 1999). The STA request was granted by the Public Safety and Private Wireless Division and was authorized for testing only. *See* STA Grant No. 7110-26, effective September 1, 1999, valid through March 1, 2000.

²⁷47 C.F.R. § 1.925(b)(3)(i) (formerly 47 C.F.R. § 90.151 (1998)).

²⁸47 C.F.R. § 1.925(b)(3)(ii) (formerly 47 C.F.R. § 90.151(a) (1998)).

²⁹Waiver Request at 1.

³⁰MOA at 1.

³¹Requests to use the pilot trunked system by federal, state, and local government entities shall be granted subject to technical and/or operational compatibility. *Id.* at 2.

³²The Commission noted the importance of interoperability when it stated, "[I]nability to communicate hinders cooperation and coordination between public safety agencies on a day-to-day basis as well as during emergencies.

10. *Public Interest.* We conclude that granting a waiver to Wisconsin would further the public interest because the joint system proposed by the Army/Wisconsin Trunked Plan promotes effective public safety communications.³³ We believe the relevant entities sharing the system will be able to communicate with one another, both on a day-to-day basis and during emergencies. We also believe that granting the waiver will facilitate communications between local and state public safety agencies and Government agencies. We note that Wisconsin necessarily will not need inter-communications between the U.S. Army and itself for much of the time during the existence of the U.S. Army/Wisconsin Pilot Sharing Plan agreed upon between the DOD and Wisconsin. At the same time, the Army/Wisconsin Plan envisions the ability to expand the VHF trunking system. It is our understanding that such expansion would not be limited to Government spectrum, but would include interoperability alternatives using non-Government spectrum as well.³⁴

11. The Commission previously determined that permitting trunked operations on shared spectrum would allow licensees to construct systems that are more efficient than conventional systems, thereby allowing licensees to use fewer channels to provide the same communications capability.³⁵ By

We believe that the present inability of public safety agencies to communicate with each other is one of the most critical deficiencies in today's public safety communications." *Public Safety First Notice*, 11 FCC Rcd at 12,469; see Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, *First Report and Order and Third Notice of Proposed Rulemaking*, WT Docket No. 96-86, 14 FCC Rcd 152, 156-57 (1998) (*Public Safety First Report and Order*); Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, *Second Notice of Proposed Rulemaking*, WT Docket No. 96-86, 12 FCC Rcd 17706, 17718-22 (1997); Public Safety Wireless Advisory Comm., *Final Report* 19-20, 45-48 (Sept. 1996).

³³While not identical, given the uniqueness of the Army/Wisconsin Pilot Sharing Plan, we nonetheless observe that the WTB noted the importance of facilitating interoperability in other public safety arenas when granting a request to allow construction and operation of, e.g., a joint Public Safety/Power Radio Service system. See, e.g., State of South Carolina, *Order*, 13 FCC Rcd 8787, 8792-93 (WTB 1997); see also Central and South West Services, Inc., *Order*, 13 FCC Rcd 16162, 16167 (PS&PWD 1998); East River Electric Cooperative, *Order*, 13 FCC Rcd 5871, 5878 (WTB 1997); Texas Utilities Services, Inc., *Order*, 13 FCC Rcd 4258, 4261 (WTB 1997); Public Utility District No. 1 of Snohomish County, *Order*, 13 FCC Rcd 7964, 7968 (PS&PWD Policy and Rules Branch 1997); cf. Combined Technologies, Inc., *Order*, 14 FCC Rcd 1964, 1966-67 (PS&PWD 1998); see also H.R. Conf. Rep. No. 217, 105th Cong., 1st Sess. 572 (1997) (discussing 47 U.S.C. § 309(j)(2) (as amended by the Balanced Budget Act of 1997, Pub. L. No. 105-33, § 3002, 111 Stat. 251)); see also 143 Cong. Rec. S6325 (statements of Senators Bryan and McCain supporting shared public safety/public service radio networks).

³⁴While the MOA refers to frequencies in the 138-150.8 MHz band for use in the proposed trunked statewide radio system in Wisconsin (MOA at 2 and 3), Wisconsin's application requests authority for 40 frequencies in the 138-144 MHz band. The pilot trunked system is designed in a way whereby the infrastructure and associated equipment will operate on frequencies in the 138-150.8 MHz band, and any other FCC-administered VHF frequencies supplied by Wisconsin or its local entities. MOA at 2.

³⁵Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignments Policies of the Private Land Mobile Services, PR Docket No. 92-235, *Second Report and Order*, 12 FCC Rcd 14307 (1997).

using this system, Wisconsin would have the opportunity to reap the benefits associated with trunked operations, *i.e.*, increased utilization of radio channels in the proposed jointly-shared federal/state/local system.³⁶ The essential and critical nature of public safety communications and the benefits associated with public safety/public service interoperability weigh in favor of granting a waiver in the instant case. In summary, we find that Wisconsin has demonstrated that the improved efficiencies in public safety communications associated with the proposed system will serve the public interest.

12. *Lack of Reasonable Alternatives.* Additionally, we find that the record in this proceeding indicates that Wisconsin has no reasonable alternatives within the existing Rules to implement the Army/Wisconsin pilot trunked system. Wisconsin states that interoperability is the primary reason it believes that a next generation public safety communications system in the VHF band is necessary. According to Wisconsin, while it has considered other bands, it believes that anything other than VHF frequencies will drastically reduce the level of interoperability that currently exists in the State.³⁷ It further states that all but five of its seventy-two counties use the VHF band exclusively or primarily for their public safety communications systems.³⁸ As set forth in the MOA, the Federal Government has a requirement to establish interoperable radio communications among Federal, State, and local government entities, and the State of Wisconsin has a requirement to establish an integrated statewide radio communications infrastructure for increasing operational effectiveness, decreasing costs, and improving communications interoperability between and among diverse Federal, State, and local government entities.³⁹

13. Wisconsin indicates that compatibility with existing VHF systems is required. Currently, all statewide mutual aid frequencies, and approximately 90-95 percent of all public safety communications in Wisconsin are VHF.⁴⁰ Therefore, taken together, both the Government requirements and Wisconsin's concerns persuade us that there appear to be no reasonable alternatives for the Army/Wisconsin system within the parameters of the proposal as presented.

14. We find that there is justification, pursuant to Section 2.102 of the Commission's Rules, to authorize Wisconsin to use the identified Government frequencies in the 138-144 MHz frequency band and to construct the four-site VHF trunked system.⁴¹ Based on the unique circumstances presented, we believe ample basis exists for licensing Wisconsin in conjunction with its proposed modifications to its system. Moreover, we further find good cause for waiving Section 90.173(c) of the Commission's Rules.

³⁶The pilot trunked system will use narrowband technologies operating within a 12.5 kHz channel bandwidth or equivalent and capable of providing services in a digital mode. MOA at 2.

³⁷See "Interoperability and VHF Trunking In Wisconsin" Report at 1.

³⁸*Id.* at 4.

³⁹MOA at 1-2.

⁴⁰Draft Wisconsin Statewide Public Safety VHF Trunking Communications System Management Plan, Developed by the Wisconsin Interagency Committee on Radio & Tower Sites at 2.

⁴¹See the NTIA Letter.

In this regard, to the extent Wisconsin would use the 138-144 MHz frequency band under the Army/Wisconsin Pilot Sharing Plan, for interoperability for its own State and local entities' functions as opposed to interoperability with Government agencies or departments such as the U.S. Army on Wisconsin's proposed system, we believe that waiving Section 90.173(c) of the Commission's Rules is appropriate.

15. As we noted previously, the MOA provides that the NTIA-authorized frequencies for the Pilot Sharing Plan will expire on July 1, 2001, and may be renewed subject to NTIA approval.⁴² The MOA also provides for revocation and termination by either the NTIA or Wisconsin.⁴³ Thus, our grant of Wisconsin's Waiver Request is conditional for the duration of the MOA and as long as any renewals thereof remain in effect. Moreover, upon revocation and termination of the MOA, Wisconsin must submit for cancellation or modification any authorization or license that would be granted in accordance with this waiver and must vacate the associated Government frequencies.

IV. CONCLUSION

16. For the reasons stated herein, we find that the State of Wisconsin has met the burden for grant of its waiver of Section 90.173(c) of the Commission's Rules. This *Order* conditionally grants its request for waiver to permit it to construct and operate a shared network on certain frequencies in the 138-144 MHz band, to be used by both Wisconsin and the federal Government. The action taken herein serves the public interest in that it will facilitate the development of federal/state/local systems, promote more efficient use of the spectrum, and provide improved opportunities for interoperable communications by the public safety, public service, and defense communities on the federal, state, and local levels.

V. ORDERING CLAUSES

17. **IT IS ORDERED** that, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Sections 1.925 and 90.173 of the Commission's Rules, 47 C.F.R. §§ 1.925; 90.173, the waiver of Section 90.173, filed by the State of Wisconsin on October 9, 1998, **IS CONDITIONALLY GRANTED**, as set forth above, and the application for modification of Station KQO228 filed by the State of Wisconsin on October 9, 1998, **WILL BE PROCESSED**.

⁴²MOA at 2. See n.13, *supra*.

⁴³The MOA provides that: (1) the NTIA may revoke the authority for use of the 138-150.8 MHz frequencies being used in the Army/Wisconsin Pilot Sharing Plan and DOD may terminate the MOA if there is no longer substantial benefit to the Government, or if higher priority requirements develop for the DOD or other Government entities; (2) Wisconsin shall vacate the affected frequency or frequencies no later than 90 days after such revocation; and (3) the WDOT may terminate the MOA if it cannot use the frequencies assigned to the Army for the Pilot Trunked System. MOA at 3.

18. **IT IS FURTHER ORDERED** that upon revocation and termination of the MOA, the State of Wisconsin **SHALL SUBMIT** for cancellation or modification any authorization or license granted as a result of the grant of the aforementioned waiver.

19. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

D'wana R. Terry
Chief, Public Safety and Private Wireless Division
Wireless Telecommunications Bureau